

# Concept and Progress of a Regional Effort to Improve Blood Lead Reporting to Six Western States by Incorporating Electronic Laboratory Reporting

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## Abstract

While electronic laboratory reporting (ELR) has the potential to be both more timely and complete than non-electronic data transmission<sup>1, 2</sup> and direct electronic data transfer can also reduce data input errors<sup>3</sup>, these benefits are often underutilized. A survey of states in HHS Regions IX and X (Alaska, Arizona, California, Hawaii, Oregon, Washington) led to collaborative efforts to maximize ELR benefits on a regional scale. Collaboration outcomes included the ratification of a regional blood lead HL7 message format and the formation of a multi-state committee to address reporting discrepancies by the large regional labs to multiple states in the regions.

## Background

Many problematic issues in blood lead reporting were identified by Oregon's survey of the six states in the regions. States were found to have varying degrees of experience with electronic lab reporting and HL7 (Health Level Seven, a national health data formatting standard) formatting. Lab reporting was found to vary widely between states. Interstate differences included omitted variables, decimal vs. whole numbers in reported results, and different minimum levels of lead reported. An additional issue involved several large labs reporting to multiple states: it was found that labs commonly reported different minimum lead levels and different variables to different states. The goal of this project was to collaboratively develop new, creative solutions for these challenges and allow both states and labs to reap the maximum benefits from ELR.

## Description

The states formed a committee to begin addressing these challenges. Oregon had already developed an ELR and HL7 guideline document for labs interested in reporting blood lead results electronically. This was the basis for the final regional document that was ratified by the committee.

The second focus of the committee was to begin working to improve blood lead reporting regionally. The first item being addressed by the committee is the issue of large labs reporting different minimum blood lead levels to different states. The committee

has analyzed the survey data regarding this topic, posted a request for any updates, and begun approaching these large labs as a coordinated group.

## Conclusions

Adoption of the regional HL7 blood lead reporting guidelines has been an unqualified success for our regions. We continue to monitor the regional reporting scene, and have been approached by CDC with interest towards implementing our model on a national level. Our progress with the regional labs is in its early stages – however, initial feedback from labs on this coordinated approach has been very positive. We are pleased with our efforts to date and what we have learned about coordinating the committee, improving our regional knowledge about reporting variations, and working cooperatively with our neighboring states and labs.

## References

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